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## References

- Akerlof, G. (1970). The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84, 488–500.
- Arrow, K. J. (1963). *Social choice and individual values* (2nd ed.). New York: Wiley.
- Arrow, K. J., Sen, A. K., & Suzumura, K. (Eds.), (2002). *Handbook of social choice and welfare* (Vol. 1). Amsterdam: North-Holland.
- Arrow, K. J., Sen, A. K., & Suzumura, K. (Eds.), (2011). *Handbook of social choice and welfare* (Vol. 2). Amsterdam: North-Holland.
- Aumann, R. J. (1974). Subjectivity and correlation in randomized strategies. *Journal of Mathematical Economics*, 1, 67–96.
- Aumann, R. J., & Hart, S. (Eds.), (1992/1994/2002). *Handbook of game theory with economic applications* (Vols. 1, 2 and 3). Amsterdam: North-Holland.
- Aumann, R. J., & Maschler, M. (1985). Game theoretic analysis of a bankruptcy problem from the Talmud. *Journal of Economic Theory*, 36, 195–213.
- Axelrod, R. (1984). *The evolution of cooperation*. New York: Basic Books.
- Benoit, J.-P., & Krishna, V. (1985). Finitely repeated games. *Econometrica*, 53, 905–922.
- Bernheim, B. (1984). Rationalizable strategic behavior. *Econometrica*, 52, 1007–1028.
- Bertrand, J. (1883). Review of Walras's 'Théorie mathématique de la richesse sociale' and Cournot's 'Recherches sur les principes mathématiques de la théorie des richesses'. *Journal des Savants*, 499–508 [translated by M. Chevallier and reprinted in Magnan de Bornier (1992), 646–653].
- Binmore, K., Rubinstein, A., & Wolinsky, A. (1986). The Nash bargaining solution in economic modelling. *Rand Journal of Economics*, 17, 176–188.
- Bird, C. G. (1976). On cost allocation for a spanning tree: A game theoretic approach. *Networks*, 6, 335–350.
- Black, D. (1969). Lewis Carroll and the theory of games. In *American Economic Review, Proceedings*
- Bomze, I. (1986). Non-cooperative two-person games in biology: A classification. *International Journal of Game Theory*, 15, 31–57.
- Bondareva, O. N. (1962). Theory of the core in the  $n$ -person game. *Vestnik Leningradskii Universitet*, 13, 141–142 (in Russian).
- Brams, S. J. (1980). *Biblical games: A strategic analysis of stories in the Old Testament*. Cambridge: MIT Press.
- Brouwer, L. E. J. (1912). Über Abbildung von Mannigfaltigkeiten. *Mathematische Annalen*, 71, 97–115.
- Cho, I. K., & Kreps, D. M. (1987). Signalling games and stable equilibria. *Quarterly Journal of Economics*, 102, 179–221.
- Churchill, W. (1983). *Second world war*. Boston: Houghton Mifflin.

- Cournot, A. (1838). *Recherches sur les principes mathématiques de la théorie des richesses* [English translation (1897) *Researches into the mathematical principles of the theory of wealth*]. New York: Macmillan.
- Curiel, I. (1997). *Cooperative game theory and applications: Cooperative games arising from combinatorial optimization problems*. Boston: Kluwer Academic.
- Curiel, I., Derks, J., & Tijs, S. H. (1986). On balanced games and games with committee control. *Operations Research Spektrum*, 11, 83–88.
- Dantzig, G. B. (1963). *Linear programming and extensions*. Princeton: Princeton University Press.
- Davis, M., & Maschler, M. (1965). The kernel of a cooperative game. *Naval Research Logistics Quarterly*, 12, 223–259.
- de Borda, J. C. (1781). *Mémoires sur les élections au scrutin*. Paris: Histoire de l'Académie Royale des Sciences.
- de Clippel, G., Peters, H., & Zank, H. (2004). Axiomatizing the Harsanyi solution, the symmetric egalitarian solution, and the consistent solution for NTU-games. *International Journal of Game Theory*, 33, 145–158.
- de Condorcet, M. (1785). *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix*. Paris: Imprimerie Royale.
- Derks, J. (1987). Decomposition of games with non-empty core into veto-controlled simple games. *Operations Research Spektrum*, 9, 81–85.
- Derks, J. (1992). A short proof of the inclusion of the core in the Weber set. *International Journal of Game Theory*, 21, 149–150.
- Derks, J., Haller, H., & Peters, H. (2000). The Selectope for cooperative games. *International Journal of Game Theory*, 29, 23–38.
- Dimand, M. A., & Dimand, R. W. (1996). *The history of game theory, volume 1: From the beginnings to 1945*. London: Routledge.
- Dodgson, C. L. (1884). *The principles of parliamentary representation*. London: Harrison & Sons.
- Dresher, M., Shapley, L. S., & Tucker, A. W. (Eds.), (1964). *Advances in game theory. Annals of mathematics studies* (Vol. 52). Princeton: Princeton University Press.
- Dresher, M., Tucker, A. W., & Wolfe, P. (Eds.), (1957). *Contributions to the theory of games III. Annals of mathematics studies* (Vol. 39). Princeton: Princeton University Press.
- Feyerabend, P. K. (1974). *Against method*. London: New Left Books.
- Ford, L. R., & Fulkerson, D. R. (1956). Maximal flow through a network. *Canadian Journal of Mathematics*, 8, 399–404.
- Friedman, J. W. (1985). Cooperative equilibria in finite horizon noncooperative supergames. *Journal of Economic Theory*, 35, 390–398.
- Fudenberg, D., & Maskin, E. (1986). The folk theorem in repeated games with discounting or with incomplete information. *Econometrica*, 54, 533–556.
- Fudenberg, D., & Tirole, J. (1991a). *Game theory*. Cambridge: MIT Press.
- Fudenberg, D., & Tirole, J. (1991b). Perfect Bayesian equilibrium and sequential equilibrium. *Journal of Economic Theory*, 53, 236–260.
- Gale, D., & Shapley, L. S. (1962). College admissions and the stability of marriage. *American Mathematical Monthly*, 69, 9–15.
- Gardner, R. (1995). *Games for business and economics*. New York: Wiley.
- Gehrlein, W. V. (2006). *Condorcet's paradox*. Berlin: Springer.
- Gibbard, A. (1973). Manipulation of voting schemes: A general result. *Econometrica*, 41, 587–601.
- Gibbons, R. (1992). *A primer in game theory*. Hertfordshire: Harvester Wheatsheaf.
- Gillies, D. B. (1953). *Some theorems on n-person games*, Ph.D. Thesis. Princeton: Princeton University Press.
- Hardin, G. (1968). The tragedy of the commons. *Science*, 162, 1243–1248.
- Harsanyi, J. C. (1959). A bargaining model for the cooperative  $n$ -person game. In *Contributions to the theory of games* (Vol. 4, pp. 324–356). Princeton: Princeton University Press.
- Harsanyi, J. C. (1963). A simplified bargaining model for the  $n$ -person cooperative game. *International Economic Review*, 4, 194–220.

- Harsanyi, J. C. (1967/1968). Games with incomplete information played by “Bayesian” players I, II, and III. *Management Science*, *14*, 159–182, 320–334, 486–502.
- Harsanyi, J. C. (1973). Games with randomly disturbed payoffs: A new rationale of mixed strategy equilibrium points. *International Journal of Game Theory*, *2*, 1–23.
- Hart, S., & Mas-Colell, A. (1989). Potential, value, and consistency. *Econometrica*, *57*, 589–614.
- Hart, S., & Mas-Colell, A. (1996). Bargaining and value. *Econometrica*, *64*, 357–380.
- Hildenbrand, H., & Kirman, A. P. (1976). *Introduction to equilibrium analysis*. Amsterdam: North-Holland.
- Hirsch, M., & Smale, S. (1974). *Differential equations, dynamical systems, and linear algebra*. San Diego: Academic.
- Hofbauer, J., Schuster, P., & Sigmund, K. (1979). A note on evolutionary stable strategies and game dynamics. *Journal of Theoretical Biology*, *81*, 609–612.
- Hofbauer, J., & Sigmund, K. (1988). *The theory of evolution and dynamical systems*. Cambridge: Cambridge University Press.
- Ichiishi, T. (1981). Super-modularity: Applications to convex games and to the greedy algorithm for LP. *Journal of Economic Theory*, *25*, 283–286.
- Jehle, G. A., & Reny, P. J. (2001). *Advanced microeconomic theory*. Boston: Addison Wesley.
- Kakutani, S. (1941). A generalization of Brouwer’s fixed point theorem. *Duke Mathematical Journal*, *8*, 457–459.
- Kalai, E., & Samet, D. (1985). Monotonic solutions to general cooperative games. *Econometrica*, *53*, 307–327.
- Kalai, E., & Samet, D. (1987). On weighted Shapley values. *International Journal of Game Theory*, *16*, 205–222.
- Kalai, E., & Smorodinsky, M. (1975). Other solutions to Nash’s bargaining problem. *Econometrica*, *43*, 513–518.
- Kalai, E., & Zemel, E. (1982). Totally balanced games and games of flow. *Mathematics of Operations Research*, *7*, 476–478.
- Kohlberg, E. (1971). On the nucleolus of a characteristic function game. *SIAM Journal of Applied Mathematics*, *20*, 62–66.
- Kreps, D. M., & Wilson, R. B. (1982). Sequential equilibria. *Econometrica*, *50*, 863–894.
- Krishna, V. (2002). *Auction theory*. San Diego: Academic.
- Kuhn, H. W. (1953). Extensive games and the problem of information. In H. W. Kuhn & A. W. Tucker (Eds.), *Contributions to the theory of games II. Annals of mathematics studies* (Vol. 28, pp. 193–216). Princeton: Princeton University Press.
- Kuhn, H. W., & Tucker, A. W. (Eds.), (1950). *Contributions to the theory of games I. Annals of mathematics studies* (Vol. 24). Princeton: Princeton University Press.
- Kuhn, H. W., & Tucker, A. W. (Eds.), (1953). *Contributions to the theory of games II. Annals of mathematics studies* (Vol. 28). Princeton: Princeton University Press.
- Lemke, C. E., & Howson, J. T. (1964). Equilibrium points of bimatrix games. *Journal of the Society for Industrial and Applied Mathematics*, *12*, 413–423.
- Littlechild, S. C., & Owen, G. (1974). A simple expression for the Shapley value in a special case. *Management Science*, *20*, 370–372.
- Lucas, W. F. (1969). The proof that a game may not have a solution. *Transactions of the American Mathematical Society*, *136*, 219–229.
- Luce, R. D., & Raiffa, H. (1957). *Games and decisions: Introduction and critical survey*. New York: Wiley.
- Luce, R. D., & Tucker, A. W. (Eds.), (1958). *Contributions to the theory of games IV. Annals of mathematics studies* (Vol. 40). Princeton: Princeton University Press.
- Magnan de Bornier, J. (1992). The ‘Cournot-Bertrand debate’: A historical perspective. *History of Political Economy*, *24*, 623–656.
- Mailath, G. J., & Samuelson, L. (2006). *Repeated games and reputations*. New York: Oxford University Press.
- Mangasarian, O. L., & Stone, H. (1964). Two-person nonzero-sum games and quadratic programming. *Journal of Mathematical Analysis and Applications*, *9*, 348–355.

- Maschler, M., Solan, E., & Zamir, S. (2013). *Game theory*. Cambridge: Cambridge University Press.
- Maskin, E. (1999). Nash equilibrium and welfare optimality. *Review of Economic Studies*, 66, 23–38.
- Maynard Smith, J., & Price, G. R. (1973). The logic of animal conflict. *Nature*, 246, 15–18.
- Milgrom, P. (2004). *Putting auction theory to work*. Cambridge: Cambridge University Press.
- Monderer, D., Samet, D., & Shapley, L. S. (1992). Weighted values and the core. *International Journal of Game Theory*, 21, 27–39.
- Morris, P. (1994). *Introduction to game theory*. New York: Springer.
- Moulin, H. (1980). On strategy-proofness and single-peakedness. *Public Choice*, 35, 437–455.
- Moulin, H. (1988). *Axioms of cooperative decision making*. Cambridge: Cambridge University Press.
- Moulin, H. (1995). *Cooperative microeconomics; a game-theoretic introduction*. Hemel Hempstead: Prentice Hall/Harvester Wheatsheaf.
- Muller, E., & Satterthwaite, M. A. (1977). The equivalence of strong positive association and strategy-proofness. *Journal of Economic Theory*, 14, 412–418.
- Muthoo, A. (1999). *Bargaining theory with applications*. Cambridge: Cambridge University Press.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13, 187–221.
- Myerson, R. B. (1978). Refinements of the Nash equilibrium concept. *International Journal of Game Theory*, 7, 73–80.
- Myerson, R. B. (1991). *Game theory, analysis of conflict*. Cambridge: Harvard University Press.
- Nasar, S. (1998). *A beautiful mind*. London: Faber and Faber Ltd.
- Nash, J. F. (1950). The bargaining problem. *Econometrica*, 18, 155–162.
- Nash, J. F. (1951). Non-cooperative games. *Annals of Mathematics*, 54, 286–295.
- Nash, J. F. (1953). Two-person cooperative games. *Econometrica*, 21, 128–140.
- Norde, H., Potters, J., Reijnierse, H., & Vermeulen, D. (1996). Equilibrium selection and consistency. *Games and Economic Behavior*, 12, 219–225.
- Nowak, A. S. (1997). On an axiomatization of the Banzhaf value without the additivity axiom. *International Journal of Game Theory*, 26, 137–141.
- Okada, A. (1981). On stability of perfect equilibrium points. *International Journal of Game Theory*, 10, 67–73.
- Osborne, M. J. (2004). *An introduction to game theory*. New York: Oxford University Press.
- Owen, G. (1972). Multilinear extensions of games. *Management Science*, 18, 64–79.
- Owen, G. (1995). *Game theory* (3rd ed.). San Diego: Academic.
- Pearce, D. (1984). Rationalizable strategic behavior and the problem of perfection. *Econometrica*, 52, 1029–1050.
- Peleg, B., & Sudhölter, P. (2003). *Introduction to the theory of cooperative games*. Boston: Kluwer Academic.
- Peleg, B., & Tijs, S. (1996). The consistency principle for games in strategic form. *International Journal of Game Theory*, 25, 13–34.
- Perea, A. (2001). *Rationality in extensive form games*. Boston: Kluwer Academic.
- Perea, A. (2012). *Epistemic game theory: Reasoning and choice*. Cambridge: Cambridge University Press.
- Peters, H. (1992). *Axiomatic bargaining game theory*. Dordrecht: Kluwer Academic.
- Peters, H. (2003). NTU-games. In U. Derigs (Ed.), *Optimization and operations research*. Encyclopedia of life support systems (EOLSS). Oxford: Eolss Publishers. <http://www.eolss.net>.
- Predtetchinski, A., & Herings, P. J. J. (2004). A necessary and sufficient condition for non-emptiness of the core of a non-transferable utility game. *Journal of Economic Theory*, 116, 84–92.
- Raghavan, T. E. S. (1994). *Zero-sum two-person games*, Chap. 20. In R. J. Aumann, & S. Hart (Eds.), *Handbook of game theory with economic applications* (Vol. 2). Amsterdam: North-Holland.

- Raiffa, H. (1953). Arbitration schemes for generalized two-person games. *Annals of Mathematics Studies*, 28, 361–387.
- Rasmusen, E. (1989). *Games and information: An introduction to game theory* (2nd ed., 1994/1995). Oxford: Basil Blackwell.
- Rawls, J. (1971). *A theory of justice*. Cambridge: Harvard University Press.
- Reny, P. J. (2001). Arrow's theorem and the Gibbard-Satterthwaite theorem: A unified approach. *Economics Letters*, 70, 99–105.
- Rockafellar, R. T. (1970). *Convex analysis*. Princeton: Princeton University Press.
- Roth, A. E. (Ed.), (1988). *The Shapley value, essays in honor of Lloyd S. Shapley*. Cambridge: Cambridge University Press.
- Rubinstein, A. (1982). Perfect equilibrium in a bargaining model. *Econometrica*, 50, 97–109.
- Samuelson, L., & Zhang, J. (1992). Evolutionary stability in asymmetric games. *Journal of Economic Theory*, 57, 363–391.
- Satterthwaite, M. A. (1975). Strategy-proofness and Arrow's conditions: Existence and correspondence theorems for voting procedures and social welfare functions. *Journal of Economic Theory*, 10, 187–217.
- Scarf, H. E. (1973). *The computation of economic equilibria*. New Haven: Cowles Foundation, Yale University Press.
- Scarf, H. E. (1976). The core of an  $n$ -person game. *Econometrica*, 35, 50–69.
- Schelling, T. C. (1960). *The strategy of conflict*. Cambridge: Harvard University Press.
- Schmeidler, D. (1969). The nucleolus of a characteristic function game. *SIAM Journal on Applied Mathematics*, 17, 1163–1170.
- Selten, R. (1965). Spieltheoretische Behandlung eines Oligopolmodells mit Nachfragezeit. *Zeitschrift für Gesamte Staatswissenschaft*, 121, 301–324.
- Selten, R. (1975). Reexamination of the perfectness concept for equilibrium points in extensive games. *International Journal of Game Theory*, 4, 25–55.
- Selten, R. (1980). A note on evolutionary stable strategies in asymmetric animal conflicts. *Journal of Theoretical Biology*, 84, 93–101.
- Selten, R. (1983). Evolutionary stability in extensive-form two-person games. *Mathematical Social Sciences*, 5, 269–363.
- Shapley, L. S. (1953). A value for  $n$ -person games. In A. W. Tucker & H. W. Kuhn (Eds.), *Contributions to the theory of games* (Vol. II, pp. 307–317). Princeton: Princeton University Press.
- Shapley, L. S. (1967). On balanced sets and cores. *Naval Research Logistics Quarterly*, 14, 453–460.
- Shapley, L. S. (1969). Utility comparisons and the theory of games. In G.Th. Guilbaud (Ed.), *La Decision* (pp. 251–263). Paris: CNRS.
- Shapley, L. S. (1971). Cores of convex games. *International Journal of Game Theory*, 1, 11–26.
- Shapley, L. S., & Shubik, M. (1972). The assignment game I: The core. *International Journal of Game Theory*, 1, 111–130.
- Snijders, C. (1995). Axiomatization of the nucleolus. *Mathematics of Operations Research*, 20, 189–196.
- Sobolev, A. I. (1975). Characterization of the principle of optimality through functional equations. *Mathematical Methods in the Social Sciences*, 6, 92–151.
- Spence, A. M. (1973). Job market signalling. *Quarterly Journal of Economics*, 87, 355–374.
- Sprumont, Y. (1991). The division problem with single-peaked preferences: A characterization of the uniform allocation rule. *Econometrica*, 59, 509–520.
- Sun Tzu (1988). *The art of war* [Translated by Thomas Cleary]. Boston: Shambala.
- Sutton, J. (1986). Non-cooperative bargaining theory: An introduction. *Review of Economic Studies*, 53, 709–724.
- Tan, T., & Werlang, S. R. C. (1988). The Bayesian foundations of solution concepts of games. *Journal of Economic Theory*, 45, 370–391.
- Taylor, P., & Jonker, L. (1978). Evolutionary stable strategies and game dynamics. *Mathematical Biosciences*, 40, 145–156.

- Thomas, L. C. (1986). *Games, theory and applications*. Chichester: Ellis Horwood Limited.
- Thomson, W. (1994). Cooperative models of bargaining. In R. J. Aumann & S. Hart (Eds.), *Handbook of game theory with economic applications* (Vol. 2). Amsterdam: North-Holland.
- Tijs, S. H., Parthasarathy, T., Potters, J. A. M., & Rajendra Prasad, V. (1984). Permutation games: Another class of totally balanced games. *Operations Research Spektrum*, 6, 119–123.
- Tirole, J. (1988). *The theory of industrial organization*. Cambridge: MIT Press.
- van Damme, E. C. (1991). *Stability and perfection of Nash equilibria*. Berlin: Springer.
- Vickers, G., & Canning, C. (1987). On the definition of an evolutionarily stable strategy. *Journal of Theoretical Biology*, 132, 387–408.
- Vickrey, W. (1961). Counterspeculation, auctions, and competitive sealed tenders. *Journal of Finance*, 16, 8–37.
- Vohra, R. V. (2005). *Advanced mathematical economics*. New York: Routledge.
- von Neumann, J. (1928). Zur Theorie der Gesellschaftsspiele. *Mathematische Annalen*, 100, 295–320.
- von Neumann, J., & Morgenstern, O. (1944/1947). *Theory of games and economic behavior*. Princeton: Princeton University Press.
- von Stackelberg, H. F. (1934). *Marktform und Gleichgewicht*. Wien: Julius Springer.
- von Stengel, B. (2002). Computing equilibria for two-person games. In R. Aumann & S. Hart (Eds.), *Handbook of game theory with economic applications* (Vol. 3). Amsterdam: North-Holland.
- Walker, M., & Wooders, J. (2001). Minimax play at Wimbledon. *American Economic Review*, 91, 1521–1538.
- Watson, J. (2002). *Strategy, an introduction to game theory*. New York: Norton.
- Weber, R. J. (1988). Probabilistic values for games. In A. E. Roth (Ed.), *The Shapley value. Essays in honor of Lloyd S. Shapley* (pp. 101–119). Cambridge: Cambridge University Press.
- Weibull, J. W. (1995). *Evolutionary game theory*. Cambridge: MIT Press.
- Young, H. P. (1985). Monotonic solutions of cooperative games. *International Journal of Game Theory*, 14, 65–72.
- Young, H. P. (2004). *Strategic learning and its limits*. Oxford: Oxford University Press.
- Zermelo, E. (1913). Über eine Anwendung der Mengenlehre auf die Theorie des Schachspiels. In *Proceedings Fifth International Congress of Mathematicians* (Vol. 2, pp. 501–504).

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